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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/991,206

11/16/2001

Frank Preiss

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02/07/2006

Infineon Technologies North America Corp.
c/o Siemens Corporation
Intellectual Property Dept.
186 Wood Avenue South
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EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,206

Applicant(s)

PREISS, FRANK

Examiner

Inder P. Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-12 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,4 and 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-12 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to Application dated: 10/12/05. Based on this amendment, claims 1, 3, 5, 7-12 and 16-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, 12, and 16 –18, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al** (US Application Publication No. 2005/0031097), hereinafter, '097 in view of **Rebec et al** (US Patent No. 5,975,531), hereinafter, Rebec, further in view of **Anandakumar et al** (US Application Publication No. 20040252701), hereinafter, '701.

For claims 1, 3, 5, and 16, '097 discloses "An apparatus for processing incoming packets in a multimedia terminal" (refer to abstract, (providing packet-based voice, video and other high-speed multimedia services over hybrid fiber coax (HFC) cable systems utilizing the DOCSIS protocol, refer to paragraph 0219), comprising:

- a media access controller configured to receive packets from a network, as recited by claims 1, 3, 5, and 16, (MAC 134 also provide bi-directional data exchange between devices such as, for example a number of PCs and---. A voice and data processor 160 is used for

processing and exchanging voice, --between packet based networks and telephony devices, refer to paragraph 0094, claim1);

- a digital signal processor configured to convert a series of real-time transfer protocol packets into a digital signal, **as recited by claims 1, 3, 5, and 16, (Referring to FIG. 25, RTP logic 630 preferably converts RTP packets to the protocol independent packet format utilized on the voice and data processor and vice versa, refer to paragraph 0240. voice and data processor is DSP, refer to paragraph 0221, which is digital);**
- ‘097 discloses “a buffer having a plurality of queues, and wherein the protocol parser unit directs packets to one of the queues and schedules packets for processing”, **recited in claim 5 and 16**, refer to paragraph 0235.

‘097 does not disclose expressly the following limitations, which are disclosed by Rebec and ‘701, as follows:

- a decompression unit to decompress the digital signal and generates an output signal to an output device---, **as recited by claims 1, 3, 5, and 16, (Second decoding/decompression unit 643S demodulates and decompresses the first encoded, compressed signal into the first**

digital signal which is the same as the first digital signal output,
refer to Rebec's col. 9 lines 45-50);

- a central processing unit to receive transmission control protocol packets,
as recited by claims 1, 3, 5, and 16, refer to abstract;(refer to
paragraph 0318), and
- a protocol parser unit **configured** to determine whether an incoming
packet is a real time transfer protocol----to direct the real-time transfer
protocol packets from the media access controller to the digital signal
processor, and to direct transmission control protocol packets from the
media access controller to the central processing unit, as recited by
claims 1, 3, 5, and 16, refer to '701's paragraph 0318, (refer to "in
FIG. 18, MCU 1781 of FIG. 17 is provided with a TCP/UDP/IP stack
1811 which further has MAC/ARP---Still further, telephone
signaling gateway software for MCU 1781 has call processing
software, address translation and parsing software (examining or
analyzing critically), and H.323 protocols (which handles transfer
protocol packets) including H.225 signaling (which is transmission
control protocol), H.245 software, and RAS/RTCP software. The
RTCP function in block 1819 is coupled to the UDP function in
TCP/UDP/IP stack 1811 and also coupled to the Packet
Encapsulation unit in DSP 1511, refer to paragraph 0318).

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It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of a decompression unit and a protocol parser unit” as taught by Rebec and ‘701. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol.

For claims 12 and 18, ‘097 discloses “wherein the real-time transfer protocol packets contain voice data, **(when a voice channel is successfully established, real time transport protocol (RTP) is used to transport all media streams in a Packet Cable compliant network to guarantee interoperability, refer to paragraph 0224).**

For claim 17, ‘097 discloses “the buffer is configured to hold incoming packet and outgoing packet, before processing, (refer to paragraph 0235, forwarding requests to queue 670--retransmits buffered requests---).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al**, hereinafter, ‘097 in view of **Rebec et al**, hereinafter, Rebec, and **Anandakumar et al**, hereinafter, ‘701, further in view of **Brassil et al** (US Patent No. 6,771,644), hereinafter, Brassil.

For claim 7, ‘097, Rebec and ‘701 disclose all the limitations of subject matter , with the exception of the following limitations, which is disclosed by Brassil, as follows:

- wherein the protocol parser unit **is configured to schedule** real-time transfer protocol packets for processing before transmission control protocol packets, **(All scheduling and control transfer occurs through the development of a new protocol to manage the transfer of control. Smooth transitions occur by manipulation of the RTP header in the packets and the associated RTCP stream,** refer to col. 3 lines 15-20.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “the protocol parser unit schedules real-time transfer protocol packets for processing before transmission control protocol packet”’s as taught by Brassil. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol ahead of control protocol.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al**, hereinafter, ‘097 in view of **Rebec et al**, hereinafter, Rebec, and **Anandakumar et al**, hereinafter, ‘701, further in view of **Hall et al** (US Application Publication No.2002/0123899), hereinafter, Hall.

For claim 8, ‘097, Rebec and ‘701 disclose all the limitations of subject matter , with the exception of the following limitations, which is disclosed by Hall, as follows:

- wherein the protocol parser unit **is configured to schedule** packets containing voice data for processing before packets containing other data , **(parse text, mask the sound of a voice, substitute speech for**

streamed text and vice versa, forward telephone calls, ---, schedule meetings, and initiate scheduled telephone conferences or virtual meetings conducted by e-mail or through the display of text by other means, refer to paragraph 0039).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “the protocol parser unit schedules packets containing voice data for processing before packets containing other data, as taught by Hall. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol ahead of other data.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al**, hereinafter, ‘097 in view of **Rebec et al**, hereinafter, Rebec, and **Anandakumar et al**, hereinafter, ‘701, further in view of **Woo et al** (US Patent No. 6,850,490)), hereinafter, Woo.

For claim 9, ‘097, Rebec and ‘701 disclose all the limitations of subject matter , with the exception of the following limitations, which is disclosed by Woo, as follows:

- wherein the plurality of queues have different priority for processing, and the protocol parser unit **is configured to assign** the packets to one of the queues based on the priority of the packet (refer to col. 9 lines 37-67).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of wherein the plurality of queues have different priority for processing, and the protocol parser unit assigns the packets to one of the queues based on the

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priority of the packet, as taught by Woo “. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol based on priority.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al**, hereinafter, '097 in view of **Rebec et al**, hereinafter, Rebec, and **Anandakumar et al**, hereinafter, '701, further in view of **Saito et al** (US Patent Application Publication No. 2005/0147053), hereinafter, Saito.

For claim 10, '097, Rebec and '701 disclose all the limitations of subject matter , with the exception of the following limitations, which is disclosed by Saito, as follows:

- Wherein the protocol parser unit includes a real-time protocol unit configured to segment and assemble a real-time protocol packets, **refer to paragraph 0073.**

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of Wherein the protocol parser includes a real-time protocol unit configured to segment and assemble a real-time protocol packets,, as taught by Saito . The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to operate video and audio applications in a network infrastructure.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al**, hereinafter, '097 in view of **Rebec et al**, hereinafter, Rebec, and

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Anandakumar et al, hereinafter, '701, further in view of **Fuhrmann et al** (US Patent No. 5,991,308), hereinafter, '308.

For claim 10, '097, Rebec and '701 disclose all the limitations of subject matter , with the exception of the following limitations, which is disclosed by '308, as follows:

- Wherein the protocol parser unit includes a transmission control protocol unit configured to segment and assemble transmission control protocol packets, **refer to claim 11.**

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of Wherein the protocol parser unit includes a transmission control protocol unit configured to segment and assemble transmission control protocol packets, as taught by '308 . The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is for interfacing to wide area networks which use TCP/IP protocols.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al** (US Application Publication No. 2005/0031097), hereinafter, '097 in view of **Rebec et al** (US Patent No. 5,975,531), hereinafter, Rebec, and **Sen et al** (US Patent No. 6,765,909, hereinafter, Sen, and further, in view of **Wei et al** (US Patent No. 6,940,821), hereinafter, Wei

For claim 19, '097 discloses "A method for processing incoming packets in a multimedia terminal" (refer to abstract, (providing packet-based voice, video and other high-speed multimedia services over hybrid fiber coax (HFC) cable systems utilizing the DOCSIS protocol, refer to paragraph 0219), comprising:

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- receiving a packet in a media access from a network (MAC 134 also provide bi-directional data exchange between devices such as, for example a number of PCs and---. A voice and data processor 160 is used for processing and exchanging voice, ---between packet based networks and telephony devices, refer to paragraph 0094, claim1);
- “storing the packets in one of a plurality of queues in a buffer and assigning a priority to the packet based on whether the packet is a real-time transfer protocol packet or a transmission control protocol packet recited in claim 19, refer to paragraph 0235.
- converting a series of real-time transfer protocol packets into a digital signal, (Referring to FIG. 25, RTP logic 630 preferably converts RTP packets to the protocol independent packet format utilized on the voice and data processor and vice versa, refer to paragraph 0240. voice and data processor is DSP, refer to paragraph 0221, which is digital);

‘097 does not disclose expressly the following limitations, which are disclosed by Rebec, Sen and Wei and, as follows:

- decompressing the digital signal and directing an output signal to an output device---, (Second decoding/decompression unit 643S demodulates and decompresses the first encoded, compressed signal

into the first digital signal which is the same as the first digital signal output, refer to Rebec's col. 9 lines 45-50);

- directing transmission control protocol packets to a central processing unit , refer to abstract; **(refer to Wei's col. 13 lines 30-35), and**
- determining whether the packet is a real-time transfer protocol packet or a transmission control protocol packet, **(Sen discloses, differentiate between TCP/IP and RTP/UDP/IP headers) and IP header compression for PPP, this scheme can be extended to differentiate between TCP/IP header compressed packets and RTP/UDP/IP header compressed packets within the same PPP session", refer to col. 6 lines 40-45).**

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of a decompression unit and a protocol parser unit" as taught by RebecWei and Sen. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabenko et al** (US Application Publication No. 2005/0031097), hereinafter, '097 in view of **Sen et al** (US Patent No. 6,765,909, hereinafter, Sen, and further, in view of **Wei et al** (US Patent No. 6,940,821), hereinafter, Wei, and **Dutnall** (US Patent No. 6,584,098).

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For claim 20, '097 discloses "A method for processing incoming packets in a multimedia terminal" (refer to abstract, (providing packet-based voice, video and other high-speed multimedia services over hybrid fiber coax (HFC) cable systems utilizing the DOCSIS protocol, refer to paragraph 0219), comprising:

- compressing an input signal from an input device to generate a digital signal, (refer to paragraphs, 0364, 0368 and 0382;- Voice compression begins with an analog-to-digital converter);
- converting a series of real-time transfer protocol packets into a digital signal, (Referring to FIG. 25, RTP logic 630 preferably converts RTP packets to the protocol independent packet format utilized on the voice and data processor and vice versa, refer to paragraph 0240. voice and data processor is DSP, refer to paragraph 0221, which is digital);
- "directing the real-time transfer protocol packets and transmission control packets to a buffer: "storing the packets in one of a plurality of queues in a buffer and assigning a priority to the packet based on whether the packet is a real-time transfer protocol packet or a transmission control protocol packet ; and "processing packets from the buffer in order of priority; **recited in claim 20**, refer to paragraph 0235.
- transmitting processed packets from a media access controller to a network (MAC 134 also provide bi-directional data exchange between devices such as, for example a number of PCs and---. A

voice and data processor 160 is used for processing and exchanging voice, ---between packet based networks and telephony devices, refer to paragraph 0094, claim1);

'097 does not disclose expressly the following limitations, which are disclosed by Sen , Wei and Dutnall, as follows:

- determining whether the packet is a real-time transfer protocol packet or a transmission control protocol packet, (**Sen discloses, differentiate between TCP/IP and RTP/UDP/IP headers) and IP header compression for PPP, this scheme can be extended to differentiate between TCP/IP header compressed packets and RTP/UDP/IP header compressed packets within the same PPP session”, refer to col. 6 lines 40-45).**
- generating transmission control protocol packets to a a central processing unit , refer to abstract; (**refer to Wei’s col. 13 lines 30-35), and**
- “directing the real-time transfer protocol packets and transmission control packets to a buffer: “storing the packets in one of a plurality of queues in a buffer and assigning a priority to the packet based on whether the packet is a real-time transfer protocol packet or a transmission control protocol packet ; and “processing packets from the buffer in order of priority; **recited in claim 20**, refer to Dutnall,s col. 3 lines 25-50..

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It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of a decompression unit and a protocol parser unit” as taught by Wei, Sen and Dutnall. The capability can be implemented by incorporating these capabilities into the terminal. The motivation for using this capability is to transmit digitized multimedia signals in real time protocol.

Response to Arguments

11. Applicant’s arguments filed 10/12/05 have been fully considered but they are not persuasive.

Applicant argues, “Anandakumar is silent to differentiate between a RTP packet and a TCP packet using the MCU 1781. Indeed, none of the components within the MCU 1781 ----to determine whether an incoming packet is a RTP packet or a TCP packet---and to direct the received packets, according to its packet type, to either a digital signal processor or a central processing unit”.

Anandakumar’701 discloses explicitly , “in FIG. 18, MCU 1781 of FIG. 17 is provided with a TCP/UDP/IP stack 1811 which further has MAC/ARP---Still further, telephone signaling gateway software for MCU 1781 has call processing software, address translation and parsing software (examining or analyzing critically), and H.323 protocols (which

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handles transfer protocol packets) including H.225 signaling (which is transmission control protocol), H.245 software, and RAS/RTCP software. The RTCP function in block 1819 is coupled to the UDP function in TCP/UDP/IP stack 1811 and also coupled to the Packet Encapsulation unit in DSP 1511, refer to paragraph 0318.

Further, Sen et al (US Patent No. 6,765,909) discloses “differentiate between TCP/IP and RTP/UDP/IP headers) and IP header compression for PPP, this scheme can be extended to differentiate between TCP/IP header compressed packets and RTP/UDP/IP header compressed packets within the same PPP session”, refer to col. 6 lines 40-45. Further, Sen discloses, “the process proceeds ---to determine the type of TCP/IP data session to which the packet belongs”, refer to col. 7 lines 29-33.

Applicant argues, “Rabenko and Anandakumar, taken alone or in combination. do not disclose a protocol parser unit configured to direct the received transmission control protocol packets from the media access controller to the central processing unit" as recited in claim 1.

In response, it is stated that Wei et al (US Patent No. 6,940,821) discloses CPU 1102 can be used to connect the computer system 1100 to an external network and transfer data according to standard protocols, such as RTP, UDP, or TCP/IP, refer to col. 13 lines 30-32.

Applicant argues, “Thus, it is clear that the PTO has not established a prima facie basis to deny patentability to the claimed invention under 35 U.S.C. §103.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

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generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In light of above explanation, arguments by applicant are not persuasive.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra 1/21/06
Inder P Mehra
Examiner
Art Unit 2666

Tom Minton

DANIG TON
PRIMARY EXAMINER